Claims

1. A defibrillator having an output stage which has an H-bridge (2) between a positive pole and a negative pole of an energy storage unit (1), and which is triggered via a trigger circuit (3) to emit a bi-phased defibrillation pulse, wherein a patient circuit is embodied in the transverse branch (QZ) having at least one inductive resistor (L1), and the bi-phased triggering takes place in a manner known per se by alternatively switching on switching members (S1, S2, S3, S4) arranged in the four H-legs of the H-bridge (2) for reversing the direction of the patient current (IP) in the transverse branch (QZ), and wherein the patient current (IP) is controlled during the various phases by presetting a reference variable and including an actual value by means of the trigger circuit (3) by triggering the switching member arrangement (S1, S2, S3, S4) with a higher frequency than that for generating the two opposite phases,

characterized in that

for regulating the patient current (IP) in the one direction, only the switching member (S3) assigned to this current direction in the H-leg (D-c) pointing to the negative pole is triggered at the higher frequency, while for regulating the patient current (IP) in the other direction only the switching member (S1) assigned to this other current direction in the H-leg (D-A) pointing to the positive pole is triggered at the higher frequency and

anti-parallel with the switching members (S3, S1) triggered at the higher frequency, at least one diode (DII, DI) is respectively arranged, so that via the latter, as well as via the switching member (S2, S4) continuously closed in the respective phase, the patient current (IP) is maintained in its respective direction even if the switching member (S1, S3) triggered at the higher frequency is in the open state.

2. The defibrillator in accordance with claim 1,

characterized in that

a current sensor resistor (R4) is arranged in the transverse branch (QZ) for detecting the patient current (IP),

a proportional voltage (E1) is formed from the patient current (IP), which is amplified by means of an amplifier (U6A) and is provided in the form of an actual value for a comparison between an internal reference voltage (REF1) and an external reference voltage (REF2) and

in case the external reference voltage (REF2) is exceeded, a trigger signal of the higher frequency is formed for opening the respective switching member (S3, S1) and, in case the interior reference voltage (REF1) is downwardly exceeded, a trigger signal of the higher frequency for closing the respective switching member (S3, S1) is formed.

3. The defibrillator in accordance with claim 2,

characterized in that

the trigger signal of the higher frequency is formed via a logic circuit (U4A, U3b).

4. The defibrillator in accordance with claim 2 or 3,

characterized in that

the amplified proportional voltage (E1) is rectified before, during or after the amplification.

5. The defibrillator in accordance with one of the preceding claims,

characterized in that

at a connecting point (P1) in the transverse branch (QZ) between a patient resistor (R5) and the inductive resistor (L1) placed in series therewith, a respective further diode arrangement (DIII, DIV) in regard to the energy storage unit is respectively arranged in the blocking direction on the one hand in the direction toward the positive pole and on the other hand in the direction toward the negative pole.

6. The defibrillator in accordance with one of the preceding claims,

characterized in that

the two switching members (S2, S4) in the two remaining H-legs A-B, B-C) are also bridged by anti-parallel arranged diodes (DV, DVI).